

Claims

1-14. (Withdrawn)

15. (Previously Presented) A high-density server comprising:

a midplane board having opposing front and back sides; multiple processor cards physically and electrically connected to the midplane board;

multiple network control cards physically and electrically connected to the midplane board; and

multiple power supply cards physically and electrically connected to the midplane board wherein the multiple processor cards, the multiple network control cards and the multiple power supply cards are connected to the midplane board via CompactPCI connectors and wherein the at least some of the multiple processor cards have pinout definitions the mirror image of J1 CompactPCI front side pinout definitions.

16-17. (Cancelled)

18. (Previously Presented) The high-density server of claim 15, wherein pin connectors are attached to the midplane board and socket connectors are attached to the multiple processor cards, the multiple network control cards and the multiple power supply cards and wherein pins of the pin connectors are secured into sockets of the socket connectors to physically and electrically connect the multiple processor cards, multiple network control cards and multiple power supply cards to the midplane board.

19. (Original) The high-density server of claim 15, further comprising a KMV switch physically and electrically connected to the midplane board.

20. (Original) The high-density server of claim 15, further comprising multiple fiber channel hard drive cards physically and electrically connected to the midplane board.

21. (Previously Presented) The high-density server of claim 15, wherein the multiple network control cards are selected from the group consisting of a network switch, a network hub, a fiber channel arbitrate loop hub and a fiber channel arbitrate loop switch.

22. (Previously Presented) The high-density server of claim 15, wherein at least one of the multiple processor cards controls at least two expansion cards through a J1 portion of a the CompactPCI connectors.

23. (Previously Presented) The high-density server of claim 15, further comprising conductive traces extending along the midplane board to electrically connect the multiple processor cards, multiple network control cards and multiple power supply cards through J2 portions of the CompactPCI connectors.

24. (Previously Presented) The high-density server of claim 23, wherein the multiple network control cards control through the J2 portions of the CompactPCI connectors a network formed from the multiple processor cards, multiple network control cards, the multiple power supply cards and the connecting conductive traces.

25. (Previously Presented) The server of claim 24, wherein the conductive traces connect the multiple processor cards, multiple network control cards, and multiple power supply cards in a daisy-chain or a star network configuration.

26. (Previously Presented) The server of claim 24, further including a chassis enclosing the midplane board, the multiple processor cards, the multiple network control cards, and the multiple power supply cards.

27. (Previously Presented) The server of claim 24, wherein the processor cards, the network control cards and the power supply cards are hot swappable so that any of the cards can be replaced without shutting down the network.

28. (Previously Presented) The server of claim 24, wherein the network will continue to operate even if any one of the multiple processor cards, the multiple network control cards and the multiple power supply cards fails to operate.

29. (Currently amended) A high-density server comprising: The server of claim 15 wherein:

a midplane board having opposing front and back sides; multiple processor cards physically and electrically connected to the midplane board, wherein the front and back sides of the midplane board are substantially rectangular with a longer edge of the rectangle defining an x-axis, the multiple processor cards have a processor card front and a processor card back side, wherein the shorter edge of the multiple processor cards defines a y-axis; and wherein at least some of the multiple processor cards are physically connected to the midplane board in a vertical configuration so that the y-axis defined by the shorter edge of the multiple processor cards is substantially perpendicular to the x-axis defined by the longer edge of the midplane board;

multiple network control cards physically and electrically connected to the midplane board; and

multiple power supply cards physically and electrically connected to the midplane board wherein the multiple processor cards, the multiple network control cards and the multiple power supply cards are connected to the midplane board via CompactPCI connectors and wherein the at least some of the multiple processor cards have pinout definitions the mirror image of J1 CompactPCI front side pinout definitions.

30. (Currently amended) A high-density server comprising: The server of claim 15 wherein:
a midplane board having opposing front and back sides; multiple processor cards
physically and electrically connected to the midplane board, wherein the front and back sides of
the midplane board are substantially rectangular with a longer edge of the rectangle defining an
x-axis, the multiple processor cards have a processor card front and a processor card back side,
wherein the shorter edge of the multiple processor cards defines a y-axis; and wherein at least
some of the multiple processor cards are physically connected to the midplane board in a
horizontal configuration so that the y-axis defined by the shorter edge of the multiple processor
cards is substantially parallel to the x-axis defined by the longer edge of the midplane board;
multiple network control cards physically and electrically connected to the midplane
board; and
multiple power supply cards physically and electrically connected to the midplane board
wherein the multiple processor cards, the multiple network control cards and the multiple power
supply cards are connected to the midplane board via CompactPCI connectors and wherein the at
least some of the multiple processor cards have pinout definitions the mirror image of J1
CompactPCI front side pinout definitions.

31.-35. (Withdrawn)